Aircraft Categorization and Identification Standard Working Group
Terms of Reference
July 26, 2001

Background

Currently various aviation organizations provide a system in which an aircraft is identified or grouped with similar aircraft. For example, ICAO Document 8642/28, *Aircraft Type Designators,* lists aircraft type designators used by air traffic control systems throughout the world. The FAA lists approved aircraft type designators in FAA Order 7110.65, *Air Traffic Control.* National aviation authorities (NAAs) register aircraft; however, these aircraft registries do not use the same identification systems. Aircraft accident investigators also identify aircraft involved in aircraft accidents. The aircraft identification system used by an aircraft accident investigation organization is not necessarily the same as the aircraft identification system used by that country's NAA.

A standard format in which an aircraft is identified or grouped with similar aircraft responds to Recommendation 1.8.3 of the White House Commission on Aviation Safety and Security. This recommendation directed the FAA to "work with the aviation community to develop standard databases of safety information that can be shared openly."

A grouping based on the aircraft manufacturer, make, model, series, or category (e.g., fixed wing) assists in the air traffic control, aircraft registration, aircraft certification, accident and incident investigation, safety analysis, and other functions. In addition, standards to uniquely identify an individual aircraft would also assist these functions. Existing aircraft unique identification methods (i.e., aircraft tail number and aircraft serial number) fail the exclusivity test-that is, duplicate serial numbers and registration numbers appear for more than one aircraft.

Many aviation functions use standardized aircraft groupings and individual aircraft identifiers:

Accident/Incident Investigation Air Traffic Control
Aircraft Certification
Aircraft Maintenance
Aircraft Manufacturing
Aircraft Registration
Aircraft Separation
Airport Planning
Airworthiness Directives
Climb and Descent Instructions
Flight Planning
Personnel Licensing
Runway Selection
Safety Analysis
Safety Inspection
Search and Rescue

Many types of organizations use standard aircraft groupings and individual aircraft identifiers:

Air carriers

Air traffic control providers
Aircraft insurers
Aviation industry foundations, associations, and similar organizations
Commercial Airline Guide Companies
Government organizations that certify and

Aircraft
Aviation application developers
Aviation historical societies
vendors inspect aircraft
Government organizations that register aircraft
Accident investigation boards
Manufacturers of new aircraft
Conformers that modify existing aircraft

More uniform standard aircraft groupings and individual aircraft identifiers will:

- Overcome difficulties in merging data from diverse information systems (e.g., international and domestic sources or public and private sources). •Reduce costs to merge and transform aircraft data.
- Enlarge the range and depth of aircraft information available for analysis.
- Reduce duplicate or multiple identifiers for the same aircraft, which increases the integrity of information available.
- Establish more useful and meaningful data that is defined and managed consistently.

Scope

The scope of this effort is to develop data standards (including lists of valid values) for aircraft categories and identifiers that are used in National Airspace System (NAS) operations, aircraft registration and certification, accident and incident investigation, safety analysis, and other functions. At a minimum the following standards will be developed:

- Aircraft manufacturer
- Aircraft make
- Aircraft master model
- Aircraft model
- Aircraft master series
- Aircraft series
- Aircraft category (such as rotorcraft)
- Aircraft sub-category (such as helicopter or gyroplane)
- Unique aircraft identifier
- Aircraft serial number

Types of aircraft that the Working Group will address include:

- Any aircraft built for civilian use whether that aircraft is still in active service or not.
- Military aircraft that meet one of the following criteria:
    1) Excessed or released by military organizations for civilian use.
    2) Modified by manufacturers or others for civilian use.
    3) Stored or display as of part of a museum or historical collection.
    4) Involved in an aviation accident or incident that (a) was investigated by a civil organization using ICAO international standards and recommended practices for Aircraft Accident and Incident Investigation (Annex 13) and (b) where the authorities obtained and released the manufacturer, model, and serial number of the aircraft.
    5) Registered by a military organization with a civilian authority such as the FAA.

The aircraft identifiers and categories established by this Working Group will be presented to the NAS Configuration Control Board (CCB). The Working Group intends for these standards to become an FAA-wide standard adopted for all new FAA systems.

Action Plan

The Working Group members will:

- Determine if additional organizations and personnel should be contacted as a source of information.
- Review products developed by the International Aircraft Categorization and Identification Standard Sub-Team of the Commercial Aviation Safety Team (CAST)/ICAO Common Taxonomy Team.
- Research and review other efforts to establish an aircraft identifier or categories. Examples of other efforts include products developed or employed by:
  - Safety Performance Analysis System (SPAS)
  - FAA's Civilian Aviation Registry, Aircraft Registration Branch (AFS-750)
  - FAA's Office of System Safety (ASY)
  - Air Traffic Control Organizations (e.g., FAA's Air Traffic Services (ATS) or Eurocontrol)
  - Bureau Veritas
  - Transport Canada
- Determine if any modifications are necessary to the products developed for other standardization efforts.
- Determine the FAA offices that will develop and/or maintain the identifiers and categories.
- Develop additional items necessary for presenting proposal to the NAS CCB.

Product Schedule

- Register proposed data elements that record standard aircraft groupings and individual aircraft identifiers with associated data models, business rules, and specific valid values in the FAA Data Registry (FDR).
- Any other material required for NAS CCB.
- Register *initial* data elements in the FDR by September 28, 2001.

Membership

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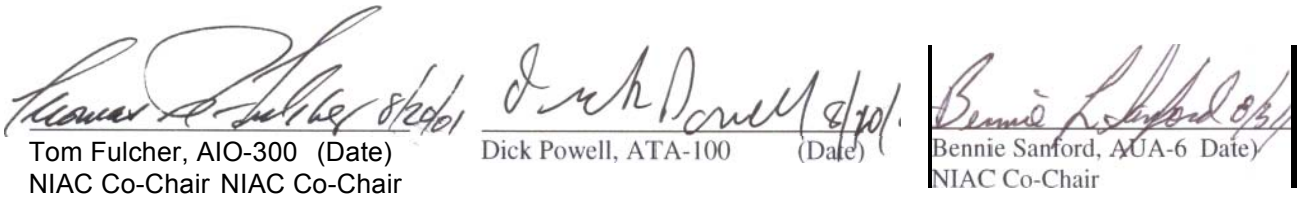
Approvals



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